**K-5 Math Lesson Plan –LESSON CONTAINS ALL RESEARCH AND DOCUMENTS**

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| **Teacher:** Buckley | | | **Grade: 5** | | **Date(s)**: August 2012 | |
| **Unit Title:**  Understanding the Decimal Place Value System | | | | **Corresponding Unit Task: Unit Task: 2012 Summer Olympics Unit 1 Task 4 – Taught final two days** | | |
| **Essential Question(s): How does a digit’s place affect its value in a real world scenario?** | | | | | | |
| **Materials/Resources** | | | | | | **Essential Vocabulary** |
| **Teacher:**   * Teacher Directed Sample Data sheet with BMX facts * News Flash Worksheet * Audition Rubric | | **Student:**   * Posterboard or Large sheet of paper * Markers * **Pre-made Research sheets (All research and Data collection has been done and is located below** * Presentation Expectations sheet with template * Student Presentation Worksheet | | | | **Rounding**  **Decimals**  **Tenth**  **Hundredth**  **Thousandth**  **Compare**  **Greater than**  **Less than**  **Equal too**  **Word Form**  **Standard Form**  **Place Value**  **Descending order**  **Ascending order** |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  √ 1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  √ 3. Construct viable arguments and critique the reasoning of others.  √ 4. Model with mathematics.  √ 5. Use appropriate tools strategically.  √ 6. Attend to precision.  √ 7. Look for and make use of structure.  √ 8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  **5.NBT.3a** - Read and write decimals to thousandths using base-ten numerals,  number names, and expanded form  **5.NBT.3b -** Compare two decimals to thousandths based on meanings of the  digits in each place, using >, =, and < symbols to record the results  of comparisons.  **5.NBT.4** - Use place value understanding to round decimals to any place. | | | | | |
| **I Can Statement(s):** I can write decimals to the thousandths using number names.  I can compare two decimals to the thousandths based on placement of the digits. I can round a decimal to the hundredths place. | | | | | |
| **Activating Strategy/Hook:** The teacher will inform the students that they will be auditioning for the Fox 8 News. In order for them to get this position they will need to be able to analyze numbers to determine scores, time and winners. Students will be asked to select either the sport of Sprinting or Swimming. They will then prepare a short news piece about the information that will:   * Be presented smoothly and clearly * Contain at least 3 facts about the sport that they have chosen * Contain at least 1 number to the thousandth place * Contain a number rounded to the nearest tenth * Contain a comparison between 3 numbers that show who won gold, silver and bronze. * Include an attractive visual aid that will support the student’s explanation of why a particular athlete won an event. | | | | | |
| **Teacher Directed:** Teacher will use the sample data sheet on BMX Racing to show the students what is expected from them during the presentation. The teacher will read aloud the BMX fact sheets and indicate which facts could be used as a part of their presentation during the read aloud.  Teacher will then show the students how they would express the final times of either the male or female BMX times. Then using place value they can show why each individual won first, second, and third place. Lastly the teacher will round the winning times to show approximately how fast the winner was traveling.  The teacher will then put the finished numbers and information into a final presentation and deliver it to the class in a sportscaster style. The teacher will use the work done on the board as a stand in for their visual aid.  **TEACHER PRESENTATION:**  Thank you Mr./Mrs. (Principal Name). We had a very big day in the United Kingdom today! We had the finals for women’s 200 meter BMX race. As you know BMX racing has been popular since the 1960s, but these athletes are going to be doing something very different than you or I. They are going to be traveling at speeds of nearly 40 miles per hour down hills 3 stories high. With only inches separating riders and seconds separating the winners from the losers, BMX racing is an incredible thrilling sport.  Now on to the London 2012 games! The fastest time in the women’s 200 meter BMX race was 35.976 seconds. This time was achieved by Anne-Caroline Chausson from the country of France. While this time was fast, it was still not an Olympic or world record **~~OR~~** ~~This time was so fast that it was an Olympic (World) record.~~ It is amazing that a person can complete the 200 meter BMX race in roughly 36 seconds. Simply incredible! So as you can see from our graphic the final results are Jill Kintner from the USA with 38.674 seconds winning the bronze, Laetitia le Corguille from France with 38.042 seconds winning the silver, and of course, Anne-Caroline Chausson from France with 35.976 seconds, winning the gold. Thank you so much and join us again tomorrow for the results of the men’s and women’s hammer throw, javelin toss, and my personal favorite, the discus. Goodnight folks! Back to you Mr./Mrs. (Principal Name). | | | | | |
| **Guided Practice:** Students will complete the worksheet **“News Flash”** independently. Teachers will review students work and check for comprehension. Teacher will review the worksheet **“News Flash”** with students providing answers as well their rational for their answers. | | | | | |
| **Independent Practice:** Students will analyze the data and will use their own ideas or the provided template to create a presentation and a visual aid of one of the 12 possible events. If students engage in any of the extension strategies they may incorporate that into their presentation.  Students will then write down their results and prepare their presentation for the entire class. | | | | | |
| **Closing/Summarizing Strategy:** Students will deliver their presentation. Teacher will review all of the skills that students have gained during the course of the unit. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | **Language Development** | |
| Students will be encouraged to compare the times of athletes of different genders competing in the same event. Then using rounding of the numbers to the nearest whole number, show the approximate difference between the genders.  Students will be encouraged to compare the times of athletes of different lengths of the same discipline. Then using rounding of the numbers to the nearest whole number, show the approximate difference in time between the different lengths. | | | Students may work with a partner to analyze the data and prepare their presentations  Teachers can identify specific pieces of information about the sport that students should include in their presentation. | | Teachers can identify specific pieces of information about the sport that students should include in their presentation. | |
| **Assessment(s):** Teacher will use the rubric to evaluate each students presentation with special attention paid to the numeracy requirement. | | | | | | |
| **Teacher Reflection:**   * What elements of the lesson worked, which elements did not * Which students have achieved mastery * Does any material need to be retaught | | | | | | |

**Presentation Expectations and Template**

These are the expectations of what you will need to include in your presentation. Feel free to use the template to help you deliver the information below.

Requirements:

* Practiced Delivery
* Contains at least 3 facts about the sport that you have chosen
* Contains at least 1 number to the thousandth place
* Contains a number rounded to the nearest tenth
* Contains a comparison between 3 numbers that show who won gold, silver and bronze.
* Includes an attractive visual aid explain why a particular athlete won an event.

Template:

Thank you Mr./Mrs. (Teacher name). We had a very big day in the United Kingdom today! We had the finals for (mens/womens) (distance) meter (sport). As you know…(3 facts about the sport chosen presented in an organized fashion).

Now on to the London 2012 games! The fastest time in the (mens/womens) (distance) meter (sport)was (thousandth place value with appropriate unit of time). This time was achieved by (name of athelete) from the country of (country). (While this time was fast, it was still not an Olympic or world record. **OR** This time was so fast that it was an Olympic (World) record.) It is amazing that a person can complete the (distance) meter (sport) in roughly (number rounded to the nearest tenth with appropriate unit of time). Simply incredible! So as you can see from our graphic the final results are (bronze medal winner) from (country) with (thousandth place value with appropriate unit of time) winning the bronze, (silver medal winner) from (country) with (thousandth place value with appropriate unit of time) winning the silver, and of course (gold medal winner) from (country) with (thousandth place value with appropriate unit of time) winning the gold. Thank you so much and join us again tomorrow for the results of the men’s and women’s hammer throw, javelin toss, and my personal favorite, the discus. Goodnight folks! Back to you Mr./Mrs. (Teacher name).

**Student Presentation Worksheet**

Thank you, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We had a very big day in the United Kingdom today! We had the finals for (mens/womens)\_\_\_\_\_\_\_ meter \_\_\_\_\_\_\_\_\_\_\_\_\_As you know \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Now on to the London 2012 games! The fastest time in the (mens/womens) \_\_\_\_\_\_ meter \_\_\_\_\_\_\_\_\_\_was \_\_\_\_\_\_\_\_\_\_\_\_. This time was achieved by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_from the country of \_\_\_\_\_\_\_\_\_\_. (While this time was fast, it was still not an Olympic or world record. **OR** This time was so fast that it was an Olympic (World) record.) It is amazing that a person can complete the \_\_\_\_\_\_\_\_\_\_meter \_\_\_\_\_\_\_\_\_\_in roughly \_\_\_\_\_\_\_\_\_\_. Simply incredible! So as you can see from our graphic the final results are \_\_\_\_\_\_\_\_\_\_from \_\_\_\_\_\_\_\_\_\_with \_\_\_\_\_\_\_\_\_\_ winning the bronze, \_\_\_\_\_\_\_\_\_\_from \_\_\_\_\_\_\_\_\_\_with \_\_\_\_\_\_\_\_\_\_ winning the silver, and of course \_\_\_\_\_\_\_\_\_\_from \_\_\_\_\_\_\_\_\_\_with \_\_\_\_\_\_\_\_\_\_ winning the gold. Thank you so much and join us again tomorrow for the results of the men’s and women’s hammer throw, javelin toss, and my personal favorite, the discus. Goodnight folks! Back to you Mr./Mrs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SAMPLE DATA SHEET with BMX FACTS**

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| BMX - Women's BMX Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/FRA.gif | [Anne-Caroline Chausson](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18683), France | 35.976 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/FRA.gif | [Laetitia le Corguille](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18685), France | 38.042 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Jill Kintner](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23586), United States | 38.674 |
| 4 | http://a.espncdn.com/i/flags/20x13/NZL.gif | [Sarah Walker](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19206), New Zealand | 38.805 |
| 5 | http://a.espncdn.com/i/flags/20x13/ARG.gif | [Gabriela Diaz](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=13223), Argentina | 39.747 |
| 6 | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Nicole Callisto](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21102), Australia | 1:19.609 |
| 7 | http://a.espncdn.com/i/flags/20x13/CAN.gif | [Sammy Cools](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=17746), Canada | DNF |
| 8 | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Shanaze Reade](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20050), Great Britain | DNF |

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| BMX - Men's BMX Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/LAT.gif | [Maris Strombergs](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20375), Latvia | 36.190 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Mike Day](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19403), United States | 36.606 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Donny Robinson](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19560), United States | 36.972 |
| 4 | http://a.espncdn.com/i/flags/20x13/COL.gif | [Andres Jimenez](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=16884), Colombia | 39.137 |
| 5 | http://a.espncdn.com/i/flags/20x13/NED.gif | [Rob van den Wildenberg](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18873), Netherlands | 39.772 |
| 6 | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Jared Graves](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=17377), Australia | 2:19.233 |
| 7 | http://a.espncdn.com/i/flags/20x13/RSA.gif | [Sifiso Nhlapo](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24070), South Africa | DNF |
| 8 | http://a.espncdn.com/i/flags/20x13/FRA.gif | [Damien Godet](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18684), France | DNF |

**BMX FACTS**

It started in the late ’60s with California kids on Schwinn bicycles imitating motocross riders on vacant lots, and ultimately developing their own sport.

For those of you who have ridden a BMX (an acronym for Bicycle Motocross), we’re not talking about jumping the six-inch curb on your neighborhood block when you were 7, or racing your buddy down the flat streets of suburban Illinois. The Olympic BMX course features a starting hill nearly three stories high where eight riders, just inches from each other, propel themselves to speeds close to 40 mph, allowing them to jump up to 45 feet.

The winner is judged by speed alone; subcultures of BMX racing like freestyle and dirt jumping — where riders flip in the air on their bikes — are not part of the Games. The 2008 Olympic BMX athletes will be staying as low to the ground as possible as they push themselves in an all-out, one-lap sprint that will last under 40 seconds.

A total of 32 men and 16 women from around the world will get a shot to compete at the games. The men will have a quarterfinal, semifinal and final round; the women will have a semifinal and a final. In each round, eight cyclists race head-to-head, down the eight-meter-high hill and around the dirt track littered with jumps. The quarter and semifinals consist of three runs, with the cumulative time from those three runs determining which four riders advance. The final is a single lap with eight cyclists.

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| 200m/400m/800m Sprinting Results  Track and Field - Men's 800m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/KEN.gif | [Wilfred Kipkemboi Bungei](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22466), Kenya | 1:44.651 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/SUD.gif | [Ismail Ahmed](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19984), Sudan | 1:44.704 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/KEN.gif | [Alfred Kirwa Yego](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22472), Kenya | 1:44.823 |
| 4 | http://a.espncdn.com/i/flags/20x13/CAN.gif | [Gary Reed](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=10285), Canada | 1:44.947 |
| 5 | http://a.espncdn.com/i/flags/20x13/BRN.gif | [Yusuf Kamel](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24135), Bahrain | 1:44.953 |
| 6 | http://a.espncdn.com/i/flags/20x13/CUB.gif | [Yeimer Lopez](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=15324), Cuba | 1:45.889 |
| 7 | http://a.espncdn.com/i/flags/20x13/ALG.gif | [Nabil Madi](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=10042), Algeria | 1:45.960 |
| 8 | http://a.espncdn.com/i/flags/20x13/ALG.gif | [Nadjim Manseur](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20419), Algeria | 1:47.191 |

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| Track and Field - Men's 400m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Lashawn Merritt](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19519), United States | 43.754 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Jeremy Wariner](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6648), United States | 44.743 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [David Neville](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19526), United States | 44.806 |
| 4 | http://a.espncdn.com/i/flags/20x13/BAH.gif | [Christopher Brown](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8957), Bahamas | 44.848 |
| 5 | http://a.espncdn.com/i/flags/20x13/FRA.gif | [Leslie Djhone](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9155), France | 45.113 |
| 6 | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Martyn Rooney](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20026), Great Britain | 45.125 |
| 7 | http://a.espncdn.com/i/flags/20x13/TRI.gif | [Renny Quow](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=14342), Trinidad and Tobago | 45.227 |
| 8 | http://a.espncdn.com/i/flags/20x13/SWE.gif | [Johan Wissman](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9708), Sweden | 45.393 |

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| Track and Field - Men's 200m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Usain Bolt](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9726), Jamaica | 19.304, **Olympic Record**, **World Record** |
| **Silver** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Shawn Crawford](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6610), United States | 19.961 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Walter Dix](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24514), United States | 19.985 |
| 4 | http://a.espncdn.com/i/flags/20x13/ZIM.gif | [Brian Dzingai](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9717), Zimbabwe | 20.229 |
| 5 | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Christian Malcolm](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9731), Great Britain | 20.405 |
| 6 | http://a.espncdn.com/i/flags/20x13/SKN.gif | [Kim Collins](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8874), Saint Kitts and Nevis | 20.591 |
| N/A | http://a.espncdn.com/i/flags/20x13/USA.gif | [Wallace Spearmon](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19593), United States | DQ |
| N/A | http://a.espncdn.com/i/flags/20x13/AHO.gif | [Churandy Martina](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8859), Netherlands Antilles | DQ |

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| Track and Field - Women's 800m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/KEN.gif | [Pamela Jelimo](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22623), Kenya | 1:54.872 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/KEN.gif | [Janeth Jepkosgei Busienei](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23630), Kenya | 1:56.075 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/MAR.gif | [Hasna Benhassi](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9140), Morocco | 1:56.739 |
| 4 | http://a.espncdn.com/i/flags/20x13/RUS.gif | [Svetlana Klyuka](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21485), Russia | 1:56.940 |
| 5 | http://a.espncdn.com/i/flags/20x13/MOZ.gif | [Maria Mutola](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21580), Mozambique | 1:57.683 |
| 6 | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Kenia Sinclair](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24213), Jamaica | 1:58.246 |
| 7 | http://a.espncdn.com/i/flags/20x13/UKR.gif | [Yuliya Krevsun](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22761), Ukraine | 1:58.731 |
| 8 | http://a.espncdn.com/i/flags/20x13/RUS.gif | [Tatiana Andrianova](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21483), Russia | 2:02.639 |

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| Track and Field - Women's 400m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Christine Ohuruogu](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20018), Great Britain | 49.622 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Shericka Williams](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24095), Jamaica | 49.697 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Sanya Richards](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6686), United States | 49.931 |
| 4 | http://a.espncdn.com/i/flags/20x13/RUS.gif | [Yulia Gushchina](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=15714), Russia | 50.013 |
| 5 | http://a.espncdn.com/i/flags/20x13/RUS.gif | [Anastasia Kapachinskaya](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21484), Russia | 50.039 |
| 6 | http://a.espncdn.com/i/flags/20x13/RUS.gif | [Tatiana Firova](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21470), Russia | 50.110 |
| 7 | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Rosemarie Whyte](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24247), Jamaica | 50.684 |
| 8 | http://a.espncdn.com/i/flags/20x13/BOT.gif | [Amantle Montsho](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8769), Botswana | 51.188 |

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| Track and Field - Women's 200m Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Veronica Campbell](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9088), Jamaica | 21.742 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Allyson Felix](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6664), United States | 21.937 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Kerron Stewart](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=24241), Jamaica | 22.002 |
| 4 | http://a.espncdn.com/i/flags/20x13/USA.gif | [Muna Lee](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6679), United States | 22.019 |
| 5 | http://a.espncdn.com/i/flags/20x13/USA.gif | [Marshevet Hooker](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23266), United States | 22.347 |
| 6 | http://a.espncdn.com/i/flags/20x13/JAM.gif | [Sherone Simpson](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9073), Jamaica | 22.361 |
| 7 | http://a.espncdn.com/i/flags/20x13/BAH.gif | [Debbie Ferguson](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9066), Bahamas | 22.618 |
| 8 | http://a.espncdn.com/i/flags/20x13/CAY.gif | [Cydonie Mothersill](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=9478), Cayman Islands | 22.681 |

Sprinting Facts

Sprints are short [running](http://en.wikipedia.org/wiki/Running) events in [athletics](http://en.wikipedia.org/wiki/Athletics_(sport)) and [track and field](http://en.wikipedia.org/wiki/Track_and_field). Races over short distances are among the oldest running competitions. The first 13 editions of the [Ancient Olympic Games](http://en.wikipedia.org/wiki/Ancient_Olympic_Games) featured only one event—the [stadion race](http://en.wikipedia.org/wiki/Stadion_race), which was a race from one end of the stadium to the other.[[1]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-Instone-0) There are three sprinting events which are currently held at the [Summer Olympics](http://en.wikipedia.org/wiki/Summer_Olympics) and outdoor [World Championships](http://en.wikipedia.org/wiki/IAAF_World_Championships_in_Athletics): the [100 metres](http://en.wikipedia.org/wiki/100_metres), [200 metres](http://en.wikipedia.org/wiki/200_metres), and [400 metres](http://en.wikipedia.org/wiki/400_metres). These events have their roots in races of [imperial measurements](http://en.wikipedia.org/wiki/Imperial_measurement) which were later altered to metric: the 100 m evolved from the [100 yard dash](http://en.wikipedia.org/wiki/100_yard_dash),[[2]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-1) the 200 m distances came from the [furlong](http://en.wikipedia.org/wiki/Furlong) (or 1/8 of a [mile](http://en.wikipedia.org/wiki/Mile)),[[3]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-2) and the 400 m was the successor to the [440 yard dash](http://en.wikipedia.org/wiki/440_yard_dash) or quarter-mile race.[[4]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-400M-3)

At the professional level, sprinters begin the race by assuming a crouching position in the [starting blocks](http://en.wikipedia.org/wiki/Starting_blocks) before leaning forward and gradually moving into an upright position as the race progresses and momentum is gained. The set position differs depending on the start. Body alignment is of key importance in producing the optimal amount of force. Ideally the athlete should begin in a 4-point stance and push off of both legs for the most force production.[[5]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-100_m_.E2.80.93_For_the_Expert-4) Athletes remain in the same lane on the running track throughout all sprinting events,[[4]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-400M-3) with the sole exception of the 400 m indoors. Races up to 100 m are largely focused upon acceleration to an athlete's maximum speed.[[5]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-100_m_.E2.80.93_For_the_Expert-4) All sprints beyond this distance increasingly incorporate an element of endurance.[[6]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-5) [Human physiology](http://en.wikipedia.org/wiki/Human_physiology) dictates that a runner's near-top speed cannot be maintained for more than 30–35 seconds due to the accumulation of [lactic acid](http://en.wikipedia.org/wiki/Lactic_acid) in muscles.[[4]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-400M-3)

The [60 metres](http://en.wikipedia.org/wiki/60_metres) is a common indoor event and it is an indoor world championship event. Less common events include the [50 metres](http://en.wikipedia.org/wiki/50_metres), [55 metres](http://en.wikipedia.org/wiki/55_metres), [300 metres](http://en.wikipedia.org/wiki/300_metres) and [500 metres](http://en.wikipedia.org/wiki/500_metres) which are used in some [high school](http://en.wikipedia.org/wiki/High_school) and [collegiate](http://en.wikipedia.org/wiki/College_athletics) competitions in the United States. The [150 metres](http://en.wikipedia.org/wiki/150_metres), though rarely competed, has a star-studded history: [Pietro Mennea](http://en.wikipedia.org/wiki/Pietro_Mennea) set a world best in 1983,[[7]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-150M-6) Olympic champions [Michael Johnson](http://en.wikipedia.org/wiki/Michael_Johnson_(athlete)) and [Donovan Bailey](http://en.wikipedia.org/wiki/Donovan_Bailey) went [head-to-head](http://en.wikipedia.org/wiki/Bailey%E2%80%93Johnson_150-metre_race) over the distance in 1997,[[8]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-7) and [Usain Bolt](http://en.wikipedia.org/wiki/Usain_Bolt) improved Mennea's record in 2009.[[7]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-150M-6)

#### 200 m

* The [200 metres](http://en.wikipedia.org/wiki/200_metres) begins on the curve of a standard track (where the runners are staggered in their starting position, to ensure that they all run the same distance), and ends on the home straight. The ability to "run a good bend" is key at the distance, as a well conditioned runner will be able to run 200 m in an average speed higher than their 100 m speed.
* Indoors, the race is run as one lap of the track, with only slightly slower times than outdoors.
* A slightly shorter race (but run on a straight track), the [stadion](http://en.wikipedia.org/wiki/Stadion_(ancient_sports)), was the first recorded event at the [Ancient Olympics](http://en.wikipedia.org/wiki/Ancient_Olympics) and the oldest known formal sports event in history.
* The world record in this event is 19.19 seconds, held by [Usain Bolt](http://en.wikipedia.org/wiki/Usain_Bolt) and was set on 20 August 2009, at the [2009 World Athletics Championships](http://en.wikipedia.org/wiki/2009_World_Athletics_Championships).

#### 400 m

* The [400 metres](http://en.wikipedia.org/wiki/400_metres) is one lap around the track on the inside lane. Runners are staggered in their starting positions to ensure that everyone runs the same distance. While this event is a sprint (according to some), there is more scope to use tactics in the race; the fact that 400 m times are considerably more than four times a typical 100 m time demonstrates this.
* The world record is currently held by [Michael Johnson](http://en.wikipedia.org/wiki/Michael_Johnson_(athlete)) with a time of 43.18 seconds.

## Rules

### The start

[Starting blocks](http://en.wikipedia.org/wiki/Starting_blocks) are used for all competition sprint (up to and including 400 m) and relay events (first leg only, up to 4x400 m).[[17]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-IAAF-16) The starting blocks consist of two adjustable footplates attached to a rigid frame. Races commence with the firing of the starter's gun.[[17]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-IAAF-16) The starting commands are "On your marks" and "Set".[[17]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-IAAF-16) Once all athletes are in the set position, the starter's gun is fired, officially starting the race. For the 100 m, all competitors are lined up side-by-side. For the 200 m, 300 m and 400 m, which involve curves, runners are staggered for the start.

In the rare event that there are technical issues with a start, a green card is shown to all the athletes. The green card carries no penalty. If an athlete is unhappy with track conditions after the "on your marks" command is given, the athlete must raise a hand before the "set" command and provide the Start referee with a reason. It is then up to the Start referee to decide if the reason is valid. In the event that the Start referee deems the reason invalid, a yellow card (warning) is issued to that particular athlete. In the event that the athlete is already on a warning the athlete is disqualified.

### Lanes

For all Olympic sprint events, runners must remain within their pre-assigned lanes, which measure 1.22 metres (4 feet) wide, from start to finish.[[18]](http://en.wikipedia.org/wiki/Sprint_(running)#cite_note-17) The lanes can be numbered 1 through normally 8 or 9 rarely 10, starting with the inside lane. Any athlete who runs outside the assigned lane to gain an advantage is subject to disqualification. If the athlete is forced to run outside of his or her lane by another person, and no material advantage is gained, there will be no disqualification. Also, a runner who strays from his or her lane in the straightaway, or crosses the outer line of his or her lane on the bend, and gains no advantage by it, will not be disqualified as long as no other runner is obstructed.

### The finish

The first athlete whose torso reaches the vertical plane of the closest edge of the finish line is the winner. To ensure that the sprinter's torso triggers the timing impulse at the finish line rather than an arm, foot, or other body part, a double Photocell is commonly used. Times are only recorded by an electronic timing system when both of these Photocells are simultaneously blocked. [Photo finish](http://en.wikipedia.org/wiki/Photo_finish) systems are also used at some track and field events.

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| 200m/100m/50m Freestyle Swimming Results  Swimming - Men's 200m Freestyle Results | | | |
|  | | | |
| **Gold** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Michael Phelps](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6486), United States | 1:42.961, **Olympic Record**, **World Record** |
| **Silver** | http://a.espncdn.com/i/flags/20x13/KOR.gif | [Park Taehwan](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20756), South Korea | 1:44.855 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Peter Vanderkaay](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6488), United States | 1:45.148 |
| 4 | http://a.espncdn.com/i/flags/20x13/RSA.gif | [Jean Basson](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23910), South Africa | 1:45.976 |
| 5 | http://a.espncdn.com/i/flags/20x13/GER.gif | [Paul Biedermann](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=16227), Germany | 1:46.005 |
| 6 | http://a.espncdn.com/i/flags/20x13/SUI.gif | [Dominik Meichtry](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7429), Switzerland | 1:46.951 |
| 7 | http://a.espncdn.com/i/flags/20x13/JPN.gif | [Yoshihiro Okumura](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7423), Japan | 1:47.148 |
| 8 | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Robbie Renwick](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20229), Great Britain | 1:47.470 |

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| Swimming - Men's 100m Freestyle Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/FRA.gif | [Alain Bernard](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22195), France | 47.213 |
| **Silver** | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Eamon Sullivan](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8006), Australia | 47.318 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/BRA.gif | [Cesar Cielo Filho](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=13417), Brazil | 47.672 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Jason Lezak](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6484), United States | 47.673 |
| 5 | http://a.espncdn.com/i/flags/20x13/NED.gif | [Pieter van den Hoogenband](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=906), Netherlands | 47.749 |
| 6 | http://a.espncdn.com/i/flags/20x13/RSA.gif | [Lyndon Ferns](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7631), South Africa | 48.044 |
| 7 | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Matt Targett](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=17477), Australia | 48.203 |
| 8 | http://a.espncdn.com/i/flags/20x13/SWE.gif | [Stefan Nystrand](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7677), Sweden | 48.331 |

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| Swimming - Men's 50m Freestyle Results | | | | | |
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| **Gold** | | http://a.espncdn.com/i/flags/20x13/BRA.gif | | [Cesar Cielo Filho](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=13417), Brazil | 21.300, **Olympic Record** |
| **Silver** | | http://a.espncdn.com/i/flags/20x13/FRA.gif | | [Amaury Leveaux](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22813), France | 21.454 |
| **Bronze** | | http://a.espncdn.com/i/flags/20x13/FRA.gif | | [Alain Bernard](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=22195), France | 21.491 |
| 4 | | http://a.espncdn.com/i/flags/20x13/AUS.gif | | [Ashley Callus](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7687), Australia | 21.614 |
| 5 | | http://a.espncdn.com/i/flags/20x13/USA.gif | | [Ben Wildman-Tobriner](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=19627), United States | 21.639 |
| 6 | | http://a.espncdn.com/i/flags/20x13/AUS.gif | | [Eamon Sullivan](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8006), Australia | 21.653 |
| 7 | | http://a.espncdn.com/i/flags/20x13/RSA.gif | | [Roland Schoeman](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6971), South Africa | 21.673 |
| 8 | |  | | [Stefan Nystrand](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7677), Sweden | 21.719 |
| Swimming - Women's 200m Freestyle Results | | | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/ITA.gif | | [Federica Pellegrini](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7582), Italy | | 1:54.822, **Olympic Record**, **World Record** |
| **Silver** | http://a.espncdn.com/i/flags/20x13/SLO.gif | | [Sara Isakovic](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7821), Slovenia | | 1:54.957 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/CHN.gif | | [Pang Jiaying](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7620), China | | 1:55.052 |
| 4 | http://a.espncdn.com/i/flags/20x13/USA.gif | | [Katie Hoff](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6466), United States | | 1:55.781 |
| 5 | http://a.espncdn.com/i/flags/20x13/ROU.gif | | [Camelia Alina Potec](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=16430), Romania | | 1:56.879 |
| 6 | http://a.espncdn.com/i/flags/20x13/GBR.gif | | [Caitlin Mcclatchey](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20224), Great Britain | | 1:57.657 |
| 7 | http://a.espncdn.com/i/flags/20x13/AUS.gif | | [Bronte Barratt](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=21445), Australia | | 1:57.833 |
| 7 | http://a.espncdn.com/i/flags/20x13/FRA.gif | | [Ophelie-Cyrielle Etienne](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23051), France | | 1:57.833 |

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| Swimming - Women's 100m Freestyle Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/GER.gif | [Britta Steffen](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=16151), Germany | 53.124, **Olympic Record** |
| **Silver** | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Lisbeth Trickett](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23219), Australia | 53.156 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Natalie Coughlin](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6462), United States | 53.387 |
| 4 | http://a.espncdn.com/i/flags/20x13/FIN.gif | [Hanna-Maria Seppala](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6956), Finland | 53.971 |
| 5 | http://a.espncdn.com/i/flags/20x13/DEN.gif | [Jeanette Ottesen](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7819), Denmark | 54.064 |
| 6 | http://a.espncdn.com/i/flags/20x13/CHN.gif | [Zhu Yingwen](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=8019), China | 54.205 |
| 7 | http://a.espncdn.com/i/flags/20x13/NED.gif | [Marleen Veldhuis](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7321), Netherlands | 54.214 |
| 8 | http://a.espncdn.com/i/flags/20x13/GBR.gif | [Francesca Halsall](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=20218), Great Britain | 54.287 |

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| Swimming - Women's 50m Freestyle Results | | | |
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| **Gold** | http://a.espncdn.com/i/flags/20x13/GER.gif | [Britta Steffen](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=16151), Germany | 24.061, **Olympic Record** |
| **Silver** | http://a.espncdn.com/i/flags/20x13/USA.gif | [Dara Torres](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=4458), United States | 24.069 |
| **Bronze** | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Cate Campbell](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=17343), Australia | 24.172 |
| 4 | http://a.espncdn.com/i/flags/20x13/AUS.gif | [Lisbeth Trickett](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=23219), Australia | 24.254 |
| 5 | http://a.espncdn.com/i/flags/20x13/NED.gif | [Marleen Veldhuis](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=7321), Netherlands | 24.255 |
| 6 | http://a.espncdn.com/i/flags/20x13/USA.gif | [Kara Lynn Joyce](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=6468), United States | 24.632 |
| 7 | http://a.espncdn.com/i/flags/20x13/NED.gif | [Hinkelien Schreuder](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18863), Netherlands | 24.646 |
| 8 | http://a.espncdn.com/i/flags/20x13/BLR.gif | [Aleksandra Gerasimenya](http://sports.espn.go.com/oly/summer08/fanguide/athlete?id=18746), Belarus | 24.765 |

## Technique

Competitors in freestyle swimming can use any of the unregulated strokes such as [front crawl](http://en.wikipedia.org/wiki/Front_crawl), [dog paddle](http://en.wikipedia.org/wiki/Dog_paddle), [sidestroke](http://en.wikipedia.org/wiki/Sidestroke), etc. Stand-alone freestyle events can also be swum using one of the officially regulated strokes ([breaststroke](http://en.wikipedia.org/wiki/Breaststroke), [butterfly](http://en.wikipedia.org/wiki/Butterfly_stroke), and [backstroke](http://en.wikipedia.org/wiki/Backstroke)). For the freestyle part of [medley](http://en.wikipedia.org/wiki/Medley_swimming) competitions, however, one cannot use breaststroke, butterfly, or backstroke. Most competitive swimmers choose the Australian or front crawl during freestyle competitions, as this style provides the greatest speed. It is based on the Trudgen that was improved by Australian-born [Richard Cavill](http://en.wikipedia.org/w/index.php?title=Richard_Cavill&action=edit&redlink=1) from [Sydney, Australia](http://en.wikipedia.org/wiki/Sydney,_Australia). Cavill developed the stroke by observing a young boy from the [Solomon Islands](http://en.wikipedia.org/wiki/Solomon_Islands), [Alick Wickham](http://en.wikipedia.org/w/index.php?title=Alick_Wickham&action=edit&redlink=1). Cavill and his brothers spread the Australian crawl to England, New Zealand and America. Richmond Cavill used this stroke in 1902 at an International Championships in England to set a new world record by swimming 100 yards (91 m) in 58.4 seconds. Freestyle competitions have also been swum completely and partially in other styles, especially at lower ranking competitions as some swimmers find their backstroke quicker than their front crawl. During the [Olympic Games](http://en.wikipedia.org/wiki/Olympic_Games), front crawl is swum almost exclusively during freestyle. Some of the only rules are that swimmers must touch the end of the pool during each length and cannot push off the bottom or hang on the wall or pull on the lane lines during the course of the race. As with all competitive events, false starts are not allowed (the number of false starts depends upon the particular competitive rules for that competition).

## New developments in the sport

In the first four Olympics, competitions were not held in pools, but, rather, in open water (1896– the [Mediterranean Sea](http://en.wikipedia.org/wiki/Mediterranean_Sea), 1900– the [Seine](http://en.wikipedia.org/wiki/Seine) river, 1904– an artificial lake, 1906– the Mediterranean Sea). The [1904 Olympics](http://en.wikipedia.org/wiki/1904_Summer_Olympics) freestyle race was the only one ever measured at 100 yards, instead of the usual 100 metres. A 100 metre pool was built for the [1908 Olympics](http://en.wikipedia.org/wiki/1908_Summer_Olympics) and sat in the centre of the main stadium's track and field oval. The [1912 Olympics](http://en.wikipedia.org/wiki/1912_Summer_Olympics), held in the [Stockholm](http://en.wikipedia.org/wiki/Stockholm) harbour, marked the beginning of electronic timing.

Male swimmers wore full body suits up until the 1940s, which caused more drag in the water than their modern swimwear counterparts. Also, over the years, some design considerations have reduced swimming [resistance](http://en.wikipedia.org/wiki/Drag_(physics)) making the pool faster — namely proper pool depth, elimination of currents, increased lane width, energy-absorbing racing lane lines and gutters, and the use of other innovative hydraulic, acoustic and illumination designs.

The [1924 Olympics](http://en.wikipedia.org/wiki/1924_Summer_Olympics) were the first to use the standard 50 metre pool with marked lanes. In the freestyle, swimmers originally dove from the pool walls, but diving blocks were eventually incorporated at the [1936 Olympics](http://en.wikipedia.org/wiki/1936_Summer_Olympics). The [tumble turn](http://en.wikipedia.org/wiki/Tumble_turn) ("flip-turn") was developed by the 1950s. The [Trudgen](http://en.wikipedia.org/wiki/Trudgen), introduced in England in the 1880s, has been completely supplanted by the [front crawl](http://en.wikipedia.org/wiki/Front_crawl), also known as the *Australian crawl*. Lane design cut down turbulence in water in the early 1970s.

## Rules and regulation

Freestyle means *any style* for individual distances and any style but breaststroke, butterfly or backstroke for medley competitions. The wall has to be touched at every turn and upon completion. Some part of the swimmer must be above water at any time, except for the first 15 metres after the start and every turn. This rule was introduced (see [History of swimming](http://en.wikipedia.org/wiki/History_of_swimming)) to prevent swimmers from using the faster underwater swimming to their advantage, or even swimming entire laps underwater. The exact FINA rules are:

* Freestyle means that in an event so designated the swimmer may swim any style, except that in individual medley or medley relay events, freestyle means any style other than backstroke, breaststroke or butterfly.
* Some part of the swimmer must touch the wall upon completion of each length and at the finish.
* Some part of the swimmer must break the surface of the water throughout the race, except it shall be permissible for the swimmer to be completely submerged during the turn and for a distance of not more than 15 metres after the start and each turn. By that point the head must have broken the surface.